

Title (en)

FORMING ONE OR MORE APERTURES IN A FIBER-REINFORCED COMPOSITE OBJECT WITH A LASER

Title (de)

BILDUNG EINER ODER MEHRERER ÖFFNUNGEN IN EINEM FASERVERSTÄRKTEN VERBUNDOBJEKT MIT EINEM LASER

Title (fr)

FORMATION D'UNE OU PLUSIEURS OUVERTURES DANS UN OBJET COMPOSITE RENFORCÉ PAR DES FIBRES AVEC UN LASER

Publication

EP 2915620 A2 20150909 (EN)

Application

EP 15157461 A 20150303

Priority

US 201414196727 A 20140304

Abstract (en)

A process is provided for forming a plurality of apertures (22) in a fiber-reinforced composite object (24) using a laser (30). The apertures (22) include at least a first aperture and a second aperture. During the process, a scanner head (38) of the laser (30) is operated from a location to selectively scan a laser beam over the object (24) to form a first portion of the first aperture and to form a first portion of the second aperture. The scanner head (38) is also operated from the location to selectively scan the laser beam over the object (24) to form a second portion of the first aperture and to form a second portion of the second aperture.

IPC 8 full level

B23K 26/08 (2006.01); **B23K 26/082** (2014.01); **B23K 26/38** (2014.01); **B23K 26/382** (2014.01); **B23K 26/388** (2014.01); **B23K 26/40** (2014.01); **B23K 26/402** (2014.01); **B64D 29/06** (2006.01); **F02C 7/045** (2006.01); **F02K 1/82** (2006.01); **B23K 103/16** (2006.01); **B64D 33/02** (2006.01)

CPC (source: EP US)

B23K 26/082 (2015.10 - EP US); **B23K 26/382** (2015.10 - EP US); **B23K 26/388** (2013.01 - US); **B23K 26/389** (2015.10 - EP US); **B23K 26/40** (2013.01 - EP US); **B23K 26/402** (2013.01 - US); **B23K 2103/16** (2018.07 - EP US); **B23K 2103/50** (2018.07 - EP US)

Cited by

US11548099B2; US11697177B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2915620 A2 20150909; **EP 2915620 A3 20160713**; **EP 2915620 B1 20190918**; US 2016136760 A1 20160519; US 9950392 B2 20180424

DOCDB simple family (application)

EP 15157461 A 20150303; US 201414196727 A 20140304